Notice of Allowability	Application No.	Applicant(s)	
	09/684,907	THOMPSON ET AL.	
	Examiner	Art Unit	
	Isaac M Woo	2172	
The MAILING DATE of this communication apperall claims being allowable, PROSECUTION ON THE MERITS IS nerewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI	(OR REMAINS) CLOSED in this apport or other appropriate communication IGHTS. This application is subject to	plication. If not includ will be mailed in due	ed course. <b>THIS</b>
1. X This communication is responsive to response filed on 07/	<u>07/2004</u> .		
2. ☑ The allowed claim(s) is/are <u>21-24 and 27-30</u> .			
3. $igotimes$ The drawings filed on <u>21 January 2004</u> are accepted by the	e Examiner.		
4. Acknowledgment is made of a claim for foreign priority unall All b) Some* c) None of the:  1. Certified copies of the priority documents have 2. Certified copies of the priority documents have 3. Copies of the certified copies of the priority do International Bureau (PCT Rule 17.2(a)).  * Certified copies not received:  Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  5. A SUBSTITUTE OATH OR DECLARATION must be subminsFORMAL PATENT APPLICATION (PTO-152) which give (a) including changes required by the Notice of Draftspers 1) hereto or 2) to Paper No./Mail Date  (b) including changes required by the attached Examiner Paper No./Mail Date  Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in the control of the paper No./Mail Date as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in the control of the paper No./Mail Date as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in the control of the paper No./Mail Date as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in the control of the paper No./Mail Date as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in the control of the paper No./Mail Date as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in the control of the paper No./Mail Date as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in the control of the priority documents and the priority documents have a control of the p	e been received. e been received in Application No cuments have been received in this of this communication to file a reply MENT of this application.  itted. Note the attached EXAMINER es reason(s) why the oath or declara st be submitted. son's Patent Drawing Review ( PTO- s Amendment / Comment or in the C 1.84(c)) should be written on the drawithe header according to 37 CFR 1.121	complying with the read of the complying in the front (not the complex ings in the	quirements  NOTICE OF
attached Examiner's comment regarding REQUIREMENT  Attachment(s)  1. ☑ Notice of References Cited (PTO-892)  2. ☑ Notice of Draftperson's Patent Drawing Review (PTO-948)  3. ☑ Information Disclosure Statements (PTO-1449 or PTO/SB/Paper No./Mail Date  4. ☑ Examiner's Comment Regarding Requirement for Deposit	5. Notice of Informal I 6. Interview Summary Paper No./Mail Da	Patent Application (PT)  (PTO-413), ate Iment/Comment	O-152)
of Biological Material	9. [] Ottlet	SACAM SHAHID PRIMARY E	ALAM XAMINER

U.S. Patent and Trademark Office PTOL-37 (Rev. 1-04)

**Notice of Allowability** 

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## **DETAILED ACTION**

1. This office action is in response to the Applicant's Amendments, filed on July 07, 2004. Claims 1-20 and 25-26 are canceled. Claims 21-24 and 28-30 are allowed in previous action. Claims 21-24 and 27-30 are presented for examination.

## Allowable Subject Matter

2. Claims 21-24 and 28-30 are allowed over prior art. The following is a statement of reasons for the indication of allowable subject matter:

Due to claimed features in the amended claims 21 and 28, with applicant's persuasive arguments with amendment, the claims 21-24 and 28-30 are allowed.

For the claims 11 and 28, the prior art teaches (Sebastian et al, U.S. Patent No. 5,822,206) system and method for the step of configuring a product, representing product component knowledge of a plurality of product component in a hierarchical structure, wherein the representing step includes storing product category information in frames in the form of nodes of the hierarchical structure and storing product features and options in slots for respective nodes of the structure, outputting a set of product-specific questions.

The prior art does not teach combination step of configuring product from a plurality of product components as follows:

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The step of receiving individual answers to respective ones of the set of productspecific questions, removing at least one product-specific question form the output set of product-specific questions, prior to receiving an answer to the at least one productspecific question, in response to answered received, performing frame-based inferences of the product knowledge stored in the hierarchical structure based on answers received, and configuring a product with features and options based on the desired attributes of the at least one product component and based on inference made. The prior art does not teach, data storage system is repository of product knowledge of product components of type, style, size and attributes, the configurator subsystem builds product configurations based on data from the data storage subsystem and established data relationships, wherein the configurator includes a core module for facilitating input and output data in the system, and a frame engine for computing available configuration answers for any configuration questions posed to the user at any time, receiving values of answers received by the user interface and performing the values of answers to other questions automatically, and generating configuration data representing configuration of a desired product.

Claims 22-24 and 29-30, dependent claims, being definite, further limiting, and fully enabled by the specification, are also allowed.

3. Claim 27 allowed over prior art. The following is a statement of reasons for the indication of allowable subject matter:

Due to claimed features in the amended claim 27, the claims 27 is allowed.

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For the claim 27, the prior art teaches (Fohn et al, U.S. Patent No. 6,076, 091) system and method for the step of configuring a product, representing product component knowledge of a plurality of product component in a hierarchical structure, wherein the representing step includes storing product category information in frames in the form of nodes of the hierarchical structure and storing product features and options in slots for respective nodes of the structure, outputting a set of product-specific questions. And quoting a price for the assembly as configured and displayed.

The prior art does not teach combination step of configuring product from a plurality of product components as follows:

The series of machine-executable program instruction for building a product component knowledge base by storing product component information related to window and door products in a hierarchical tree, wherein the hierarchical tree is composed of frames corresponding to different products component and slots within each frame corresponding to attributes of the different products components.

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## **Conclusion**

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac M Woo whose telephone number is (703) 305-0081. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (703) 305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IMW July 15, 2004

> SHAHID ALAM PRIMARY EXAMINER